

REMARKS

Claims 1-4 and 9-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Cho (JP 11-126633) (hereinafter: "Cho"). The Office notes that Cho discloses a lithium ion battery in which the electrolyte can comprise ethylene carbonate and γ -butyrolactone and dimethoxyethane.

The rejection has been overcome by amending claim 1 to include the limitations of claim 17 (without the recitation of dimethoxyethane as the wettability improving agent), which is not included in the 35 U.S.C. 102(b) rejection, and by canceling claim 17. The remaining claims depend either directly or indirectly on claim 1.

Removal of the 35 U.S.C. 102(b) rejection of the claims is believed to be in order and is respectfully requested.

Claims 1-4, 5-8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamoto et al. (US Publication 2002/0039677 A1) (hereinafter: "Iwamoto"). The Office notes that Iwamoto discloses a nonaqueous electrolyte secondary battery which can include a polyethylene separator, an electrolytic solution which can comprise ethylene carbonate and a γ -butyrolactone as solvents and an additive which can be tetrahydrofuran carbonate. The Office's position is that it would be obvious to use

tetrahydrofuran in place of the tetrahydrofuran carbonate additive of Iwamoto. The Office states that tetrahydrofuran and tetrahydrofuran carbonate equivalents because these compounds "share close structural similarities between chemical compounds of homolog [sic], analogues and isomers." (Action, page 3, last three lines).

Applicants respectfully submit that the Office has not properly supported a case of *prima facie* obviousness of claims 1-8 and 17 under 35 U.S.C. § 103(a).

Contrary to the suggestion in the Action, tetrahydrofuran and tetrahydrofuran carbonate are not homologs or isomers and the Office has not shown such compounds to be chemical analogues. More particularly, the Office has not provided proper evidence or reasoning to show that a person of ordinary skill in the art would have a reasonable expectation that such compounds would have similar properties when used in a lithium secondary battery where the separator comprises polyethylene and the electrolyte comprises a mixture of ethylene carbonate and γ -butyrolactone. There are significant differences in chemical characteristics and properties between an ether (solvent) and a carbonate (solvent).

Removal of the 35 U.S.C. 103(a) rejection of claims 1-8 and 17 is also believed to be in order and is respectfully requested.

The foregoing is believed to be a complete and proper response to the Office Action dated May 3, 2006, and is believed to place this application in condition for allowance. If, however, minor issues remain that can be resolved by means of a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number indicated below.

In the event that this paper is not considered to be timely filed, applicants hereby petition for an appropriate extension of time. The fee for any such extension may be charged to our Deposit Account No. 111833.

In the event any additional fees are required, please also charge our Deposit Account No. 111833.

Respectfully submitted,

KUBOVCIK & KUBOVCIK



Ronald J. Kubovcik
Reg. No. 25,401

Atty. Case No. SNY-039
The Farragut Building
Suite 710
900 17th Street, N.W.
Washington, D.C. 20006
Tel: (202) 887-9023
Fax: (202) 887-9093
RJK/jbf